



Adept Technology, Inc.

Industrial Robotics Product Range

adept[®]

YOUR INTELLIGENT ROBOTICS PARTNER



ADEPT ROBOTS

Quattro Parallel Robots

The Adept Quattro™ robot is the fastest parallel robot in the world. The patented four-arm design, advanced control algorithms, embedded amplifier, and large work envelope make the Quattro the ideal robot for high-speed assembly, processing, packaging, and other manufacturing applications. The Adept Quattro robot comes with a 650 or 800 mm reach, a minimal footprint, and delivers sustainable, smooth motions at high speeds. The efficient design saves 23% in energy consumption compared to its peers. The Adept Quattro s650HS version is USDA-accepted for meat and poultry processing.



Viper 6-axis Robots

The Adept Viper™ robot is a high-performance 6-axis robot with a 650, 850, 1300, or 1700 mm reach. Adept Viper robots have the precision and speed for which Adept is known, with the added flexibility afforded by their 6-axis design. Adept Viper robots include the Adept SmartController, equipping each with conveyor tracking and vision guidance capabilities. Viper robots are available in wash-down and cleanroom configurations.



Cobra SCARA Robots

The Adept Cobra™ robot is a high-performance tabletop SCARA robot with a 350, 600, or 800 mm reach. Adept Cobra s-Series robots (s350, s600, and s800) include the Adept SmartController, equipping each with conveyor tracking and vision guidance capabilities. Cobra s-Series robots are available in cleanroom, wash-down, and inverted configurations.



Python Linear Modules

Adept Python™ linear modules are designed for scalability and flexibility. Adept Python modules incorporate unique design features, making them robust for single-axis, dual-axis, three-axis, or four-axis applications with rotation, gantry, and cantilever configurations. Individual Python modules are assembled, tested, and shipped as complete multi-axis assemblies per user specifications. All Python modules are available in both cleanroom and ESD versions.



ADEPT CONTROLLER-LESS ROBOTS

i-Series Cobra Robots

Adept Cobra i-Series robots (i600 and i800) feature embedded controls and amplifiers in the robot's base, simplifying the design, reducing the cost, and increasing the footprint efficiency. i-Series robots are programmed using Adept ACE software, and are a cost-effective solution for many simple automation tasks.



ePLC Robots

Adept's ePLC robots natively run Adept ePLC Connect™ software, which allows them to communicate directly with an existing Programmable Logic Controller (PLC) without the use of a separate external controller. This ePLC configuration allows users to install, program, operate and support our high-performance robots using the familiar interface of their existing PLC. Because of their compact, or fully integrated controllers and amplifiers, ePLC robots have minimal footprints that provide maximum flexibility for facility layouts. Adept ePLC robots are designed to provide significant cost and time savings for users with new or existing PLC automation systems.



PRODUCT SPECIFICATIONS

	Adept Cobra			Adept Quattro	
	350	i600 / i800	600 / 800 / 800 Inv	650H / 650HS	800H
Number of Axes	4	4	4	4	4
Max Payload (kg)	5	5.5	5.5	6 / 3	4
Footprint (mm)	219x150	338x200	338x200	935 DIA	935 DIA
Weight (kg)	20	41 / 43	41 / 43 / 51	117	117
Reach (mm)	350	600 / 800	600 / 800 / 800	650 (max)	800 (max)
Z-Stroke (mm)	200	210	210	500	500
Repeatability					
XY (mm)	±0.015	±0.017	±0.017	±0.1	±0.15
Z (mm)	±0.01	±0.003	±0.003	±0.1	±0.15
Theta	±0.005°	±0.019°	±0.019°	±0.2°– 0.6°*	±0.2°– 0.6°*
Controller-less PLC communication (ePLC)	optional	no	optional	optional	optional
SmartController Compatible	yes	no	yes	yes	yes
I/O expansion	optional	optional	optional	optional	optional
Max IP Rating	–	–	– / IP-65 / IP-65	IP-65 / IP-67	IP-65
Max Cleanroom Rating	ISO 4	–	ISO 4	ISO 6	ISO 6

	Adept Viper				Adept Python Linear Modules
	650	850	1300	1700D	L08 / L12 / L18
Number of Axes	6	6	6	6	1–4
Max Payload (kg)	5	5	10	20	10 / 40 / 80 **
Footprint (mm)	430x200	430x200	581x305	501x396	–
Weight (kg)	28	29	78	280	–
Max Reach (mm)	653	855	1298	1717	800 / 1500 / 1600
X,Y,Z Repeatability (mm)	±0.02	±0.03	±0.07	±0.06	±0.006-0.015
Controller-less PLC communication (ePLC)	optional	optional	with external controller	with external controller	with external controller
SmartController Compatible	yes	yes	yes	yes	yes
I/O Expansion	optional	optional	optional	optional	–
Max IP Rating (Arm/Wrist)	IP-54 / IP-65	IP-54 / IP-65	IP-40	IP-65 / IP-67	–
Max Cleanroom Rating	ISO 4	ISO 4	–	–	ISO 4

* Platform dependent

** Maximum capable payload depends upon the orientation and configuration of the units

	Controllers								
	Dimensions (mm)	Weight (kg)	Max Robots per Controller	Ethernet Ports	RS-232 / 422 / 485 Support	DeviceNet Support	Manual Control Pendant (T20)	Programming Language	Conveyor Tracking
SmartController EX	329x187x86	2.7	4	2	yes	yes	optional	eV+	optional

ADEPT CONTROLLERS

SmartController EX

The Adept SmartController™ is an ultra-compact robot motion controller, featuring distributed architecture for scalability, embedded software for real-time operations, high-speed communication for belt encoder and camera support, and a fast processor for high performance. The Adept SmartController integrates robots with conveyors, cameras, grippers, and software.

SmartVision EX

The Adept SmartVision™ EX is a high-performance vision processor with Windows OS, optimized to run Adept ACE™ and its extensions. It can be used as a stand alone solution for vision guidance and inspection applications or seamlessly integrated with multiple robots, conveyors, grippers, cameras, and sensors through the Adept SmartController.



ADEPT SOFTWARE

ACE

Adept ACE (Automation Control Environment) is PC-based software for configuring, calibrating, and managing equipment in a workcell. This functionality is accessed through a user-friendly graphical user interface (GUI). Adept ACE software is built on a modular framework, which greatly reduces the cost of programming complex applications with conveyor tracking and vision guidance. Some available modules include PackXpert™, for packaging applications, AdeptSight™ for integration of vision systems, and UI builder for building Human Machine Interfaces (HMI). ACE software comes standard with an emulation mode where all available modules can be accessed and used for process simulations.

ePLC Connect

Adept ePLC Connect is software that runs on both Adept SmartControllers and ePLC robots. It provides seamless connectivity with a customer supplied Programmable Logic Controller (PLC). The ePLC Connect software allows users to install, program, operate and support Adept's high-performance robots using the familiar interface of their existing PLC.



ADEPT INFEEDS

Part Feeding Solutions

The Adept AnyFeeder™ and Adept Flexibowl™ provide a rapid and cost effective method for feeding parts to your automated workcell. Paired with an Adept robot and integrated vision guidance, these solutions support a high degree of product variation and bring true flexibility to your process. Using the correct part feeders can significantly increase the overall throughput of your system and improve the cost-per-pick ratio.



SUSTAINABLE SOLUTIONS FOR AUTOMATION

Adept intelligent robotics helps companies achieve sustainable processes by addressing the automation challenges of today, while preparing for the challenges of tomorrow. The need to preserve resources means automation will increasingly be designed with sustainability in mind. Sustainable automation can be achieved by addressing three strategic goals:

PRESERVE RESOURCES

through more efficient product changeover and lower energy consumption in automation processes.

PROTECT PRODUCTS, CONSUMERS, AND EMPLOYEES

by reducing contamination, tampering, and work-related injury through automation's ability to reduce repetitive human contact with product.

PROSPER ECONOMICALLY

by using flexible automation that increases production yields, flexibility, and the productivity of the plant floor.



Vision guidance adds flexibility and precision to robotic systems. It provides a cost-effective alternative to tightly fixtured parts in a fraction of the time, and is an enabling technology for conveyor-tracking applications.

Alternative Energy Applications

- Vision-guided component management
- Hazardous product handling
- Inspection, test, and quality control
- Precision part transfer
- Packaging and kitting

Automotive Applications

- Assembly of components and sub-assemblies
- Screw driving and attachment of fasteners
- Material handling and parts transferring
- Inspecting and testing assemblies
- Dispensing sealants and adhesives

Medical Device Applications

- Automation of lab processes, such as fluid and material handling
- Precision dispensing of material
- Loading and unloading of test stations
- Precise part placement
- Packaging and kitting

Food Applications

- Picking product from moving conveyor belt
- Material handling, including case packing, line balancing, sorting, and collating
- Product capping
- Packaging product into primary and/or secondary packaging

Industrial Applications

- Loading and unloading of tools
- Case packing, loading, and unloading of parts trays
- Assembling and packaging parts and kits
- Inspection station loading and unloading

Consumer Electronics Applications

- Assembling components and sub-assemblies
- Sorting, stacking, and finishing
- Screw driving and attaching other fasteners
- Inspection and testing of assemblies



"Adept Service supports us in the continued operation of our existing systems. Extremely short response times and highly flexible service are indispensable to us. Our choice of Adept was right."

—Michael Otorowski
Continental Teves, Brake Hose Assembly Division

UNMATCHED SERVICE AND SUPPORT

Adept's support begins before you place your order. Our team is committed to reducing any risk associated with implementing flexible automation. Our application engineers design and specify what you need to deploy and run your applications quickly and smoothly.

Once your Adept robotic system is deployed, our support team helps answer your questions, provides training, and handles maintenance with ease. Our training classes cover deploying, configuring, and managing your automation system.

Adept continuous worldwide support includes:

- 24/7 emergency phone support
- Free telephone technical support
- Emergency parts depots in strategic locations
- Emergency parts orders that offer same-day shipping

Adept Headquarters
Adept Technology, Inc.
5960 Inglewood Drive
Pleasanton, CA 94588 US
Tel: +1 925 245 3400
Fax: +1 925 960 0427
info@adept.com
Technical Support:
Tel: +1 800 BE ADEPT
tech.support@adept.com
www.adept.com

Adept Germany
Adept Technology GmbH
Revierstr. 5
44379 Dortmund Germany
Tel: +49 231 7589 40
Fax: +49 231 7589 450
info.de@adept.com
www.adept.de

Adept France
Adept Technology France
Parc Altais - 25, rue Vega
74650 Chavanod
France
Tel: +33(0)4 5002 8116
Fax: +33(0)4 5069 1359
info.fr@adept.com
www.adept-technology.fr

